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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,048	09/04/2003	Jef Frank	03-796	8957
20306	7590	03/10/2006	EXAMINER	
MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP			CASIANO, ANGEL L	
300 S. WACKER DRIVE			ART UNIT	PAPER NUMBER
32ND FLOOR				2182
CHICAGO, IL 60606			DATE MAILED: 03/10/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/656,048	FRANK ET AL.	
	Examiner	Art Unit	
	Angel L. Casiano	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 September 2003.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-15 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 16 January 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

- The present Office action is in response to application dated 04 September 2003.
- Claims 1-15 are pending.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- Figure 1, "40"

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action

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in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. The use of the trademarks SONY, PIONEER, ATMEL, and KENWOOD has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the

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subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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7. Claims 1, 3-7, and 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allmond et al. [US 6,072,803] in view of Sgambati [US 5,606,443].

Regarding claim 1, Allmond et al. teaches an apparatus (see Abstract) for using a control port to operate in accordance with multiple signal protocols (see Abstract, "capable or operating according to one of two different communication protocols"). The reference includes an interface controller (see "control logic") comprising a line driver, a system interface (see "interfacing an external network device") and a plurality of protocol drivers (see col. 3, line 55) each defining at least one signal characteristic, the system interface operable to receive a configuration instruction (see col. 3, lines 17-19) from a main processor and the line driver operable to communicate data on an input line and an output line 9see Abstract, "transceiver"). The reference also teaches control signal processor comprising: an output function to couple a data signal on the control port from the output line in accordance with a first direction state on the direction line; an input function to couple a data signal from the control port to the input line in accordance with a second direction state on the direction line (see "control logic", col. 3, lines 44-47).

However, the Allmond et al. reference fails to teach a modulation control line in accordance with the configuration instruction and a control signal processor comprising a modulator unit operable to modulate the data signal output in accordance with the modulation control line, as claimed. As for these limitations, Sgambati teaches modulation control in accordance to configuration instructions (see col. 6, lines 54-58). Furthermore, the reference teaches a modulator unit (see "200") for modulating the signal output (see Id.) At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to obtain an apparatus capable of producing control signals for SONY brand equipment, as taught by Sgambati (see col. 6, line 57).

As for claim 3, Sgambati teaches modulating the data signal by coupling a signal to a control port when the control line is in a modulation enable state (see col. 6, lines 58-62). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons stated above.

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As for claim 4, Sgambati teaches setting a modulation line to a high or low state (see col. 6, lines 65-67, "drive"). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons stated above.

As for claims 5 and 6, Sgambati teaches modulating the data signal by coupling a signal to a control port when the control line is in a modulation enable state (see col. 6, lines 58-62). The reference also teaches transitioning between a high and low level (see col. 6, lines 62-63, "drive"). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons stated above.

As for claim 7, Allmond et al. teaches additional input line, output line, and direction line (see Figure 1, "102"). While Allmond et al. fails to teach a modulation control line in accordance with the configuration instruction, Sgambati teaches modulation control in accordance to configuration instructions (see col. 6, lines 54-58). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons stated above.

As for claim 9, Sgambati explicitly teaches an infrared (IR) protocol used by audio equipment (see col. 6, lines 56-58). The SONY brand equipment includes "disc changers". At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons stated above.

Regarding independent claim 10, the combination of references teaches the apparatus for using a control port to operate in accordance with multiple signal protocols. Therefore, the combination of references also teaches the method for using a control port to operate in accordance with multiple signal protocols. The present independent claim is rejected under the same rationale.

As for dependent method claims 11-14, these claims are rejected under the same rationale.

Regarding independent claim 15, the combination of references teaches the apparatus for using a control port to operate in accordance with multiple signal protocols. Therefore, the combination of references also teaches the media management system for implementing the control port to operate

in accordance with multiple signal protocols. The present independent claim is rejected under the same rationale.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allmond et al. [US 6,072,803] in view of Sgambati [US 5,606,443], in further view of Sibigtroth et al. [US 5,251,304].

As for claim 2, the combination of references does not teach a bi-directional buffer. As for this limitation, Sibigtroth et al. teaches a control signal processor having a bi-directional buffer (see col. 6, lines 3-11) communication in a first direction state and a second direction state (see col. 6, lines 18-19 and 24). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to obtain a controller able to operate according to "write control" and "read control" signals, as taught by Sibigtroth et al. (see Id.)

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allmond et al. [US 6,072,803] in view of Sgambati [US 5,606,443], in further view of Douma et al. [US 6,370,550 B1].

As for claim 8, the combination of references does not teach the use of the S-Link protocol. Douma et al. teaches using the S-Link protocol (see col. 3, line 2). At the time of the invention, one of ordinary skill in the art would have been motivated to modify the combination of references in order to "fully integrate multimedia components into a single coherent system" allowing the components to be "automatically configured" in "accordance with the user action", as taught by Douma et al. (see col. 3, lines 3-6).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel L. Casiano whose telephone number is 571-272-4142. The examiner can normally be reached on 9:00-5:30 pm.

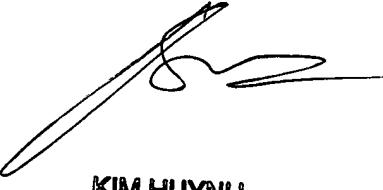
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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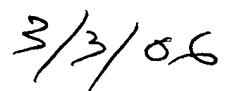
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Alc

28 February 2006



KIM HUYNH
SUPERVISORY PATENT EXAMINER



3/3/06